

# BUDGETING AND CONTROLLING (PART 22):

## ROX-RATIOS (1)



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With the support of ROX-ratios the return or profitability resp of an enterprise can be presented.

ROX-ratios, all represent the result (Return = R) in relation to (on = O) a certain impacting factor X. This factor X can be for example the total capital (investment) employed in an enterprise (ROI = Return on Investment), the total equity employed in an enterprise (ROE = Return on Equity), the factor X can, however, also refer to the sales of an enterprise (ROS = Return on Sales)

The three ratios mentioned ROI, ROE and ROS are the best known ratios of a multitude of ROX-ratios. Recently, a number of further ratios were developed which are all based on this ROX system: ROA, ROFA, ROTA, ROCE, ROACE, etc.

All these ratios have one thing in common: to present the profitability of the enterprise, displayed as result (profit or loss) in comparison to the most varying impacting factors.

Differentiated according to the desired information, very often enterprise-specific ways of calculating the individual ratio can be encountered in the application.

Like that, already for calculating the basic value which is incorporated into the calculation of the ratios, namely for the result (profit and loss), varying values from the profit and loss account, such as eg operating result (EBIT), profit from ordinary activities (EBT), profit for the year or also profit for the year plus interest paid, can be used.

A calculation of ratios based on operating result which means profit from operating business activities, leads to a review of the profitability solely with regard to the operational part of the enterprise (without taking the financial result and taxes into consideration) compared to the presentation of the profitability of the whole enterprise if the profit from ordinary activities (EBT) or profit for the year resp is used as a basic value.

The consideration of a profit either before or after deducting interest paid, results from the reflection whether a review of the profitability of the enterprise should be carried out with taking the effects of financing from own or outside resources into account or if the aspect of the own or outside capital structure of the enterprise should be disregarded.

If the profit after deducting interest paid is used for calculating the ratios, the calculation is based on the assumption that the

capital structure of the enterprise or the effect of the capital structure of the enterprise on interest paid and thus on the profit, should be taken into account when considering the profitability of the enterprise. Depending on the dimension of outside capital in the enterprise, a certain amount of interest paid results from it, which reduces the profit and thus reduces the basis for calculating the ratio.

If, however, a profit before deducting interest paid is used for calculating the ratios, the point of view changes in so far as the capital structure of the enterprise and so the composition of the whole capital, own and outside capital, is of no relevance for the determination of or for the information on the ratio.

The consideration of a profit before or after tax can, eg depend on the question whether a neutral review – neutral concerning the legal form of the commercial entity - should be carried out or if an international review or comparison should be enabled.

A neutral consideration of the pure profitability of the business activity of the enterprise – neutral concerning the legal form of the commercial entity - is made possible by using profit before tax. Using profit after tax would take advantages and disadvantages of the legal form of the entity, due to different fiscal regulations, into account.

A similar situation occurs in the framework of an international consideration or comparison resp. A consideration of the pure profitability of the business activity of the enterprise itself, independent of the fiscal situation of the location of the enterprise is made possible when using profit before tax. Incorporating profit after tax would, however, take advantages or disadvantages of the location, due to different fiscal regulations, into account.

The following article of the series Budgeting and Controlling will deal with the question which of the different values of the balance sheet the described profit of the enterprise is compared to in the framework of calculating the ROX-ratios and how this affects the calculation and basic message of the ratios.

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